

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Schmitt, et al.	§	Case: AMAT/8568/DSM/BCVD/JW
	§	
Serial No.: 10/812,717	§	Filed: March 29, 2004
	§	
Examiner: Lafond, Ronald D.	§	Group Art Unit: 1709
	§	
Confirmation No.: 3736	§	
	§	
Title: DEPOSITION OF LOW	§	
DIELECTRIC CONSTANT BY N₂O	§	
ADDITION	§	

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

DECLARATION UNDER 37 C.F.R. § 1.131

I, Raymond Kwong, hereby declare as follows:

1. Applied Materials, Inc., is the owner of one hundred percent of the interest in United State Patent Application Serial No. 10/812,717. The assignment to Applied Materials, Inc., was recorded on March 29, 2004 on Real/Frame No. 015164/0571;
2. After referring to Applied Materials Human Resource (HR) records, I believe that the inventor, Padmanabhan Krishnaraj, is deceased;
3. In view of Exhibit A1-C and the declaration provided by Ms. Francimar C. Schmitt, I declare on behalf of the deceased inventor that the invention of pending claims 1-14 was conceived of prior to October 16, 2003, and filed with due diligence to the filing date of the present application on March 29, 2004;

4. I hereby declare that all statements made herein of my own knowledge are true, and that statements made on information and belief are believed to be true. Further, I hereby acknowledge that making willfully false statements is punishable by fine or imprisonment, or both, under 18 U.S.C. § 1001, and that any such willful false statements may jeopardize the validity of the Application or any patent resulting therefrom.

Feb 11, 2008
Date


Raymond Kwong
Vice President, Applied Materials, Inc
Chief Intellectual Property Counsel and
Assistant Corporate Secretary

Exhibit A1

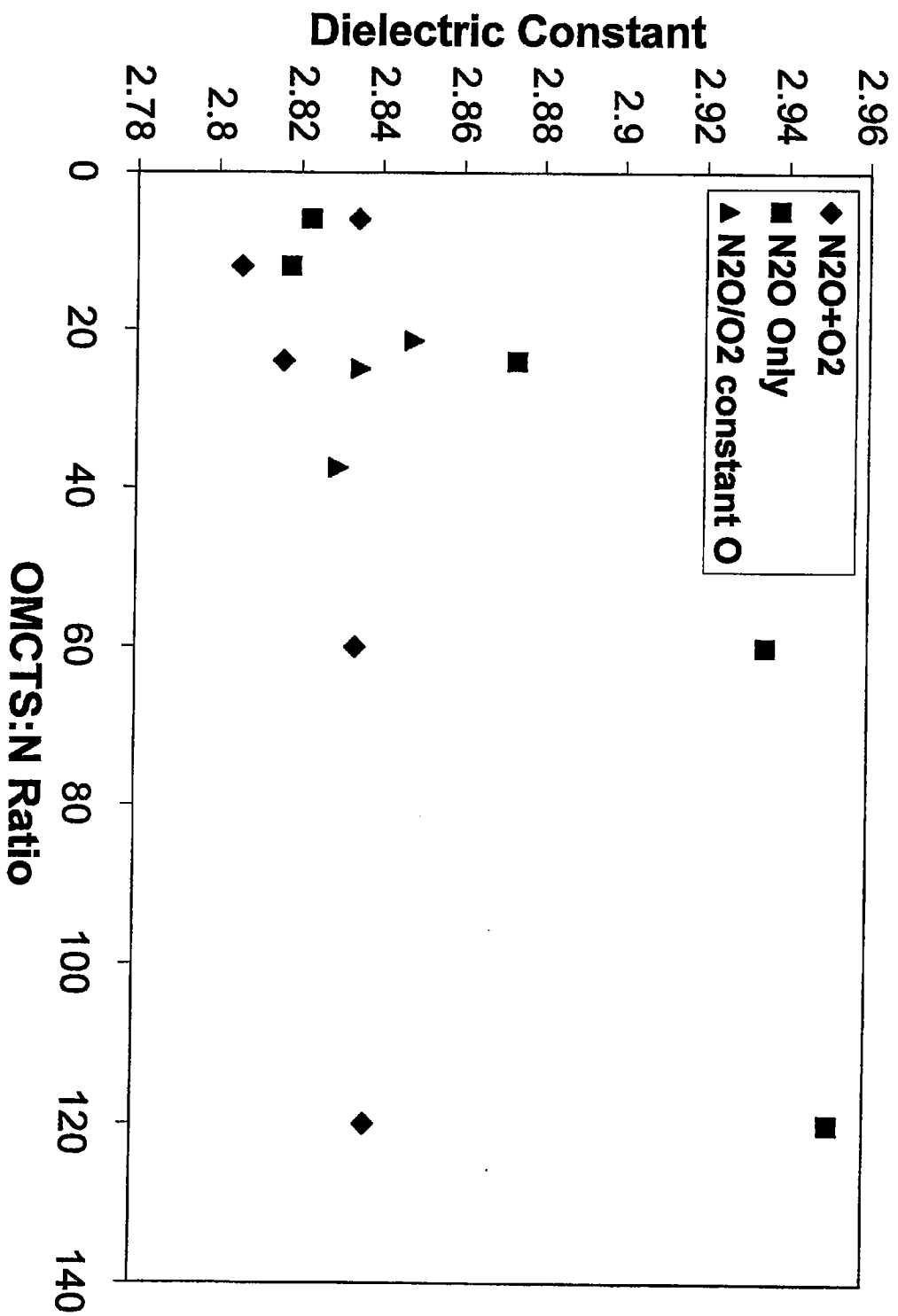


Exhibit A1

Ad	Incap	NEO	CC	DT	Thick	DR	Range	Unit	A-Deg										E-RT									
									RI	CPT	Thick	Cap	K	Stress	mod	NO	O2	DT	Thick	DR	Range	Unit	RI	CPT	Thick	Cap	K	Stress
10	FSM-1	1600	160	78	1627	11705	2123	3.68	1.386	13063.18	42.35	2.83	27.08	4.741	1000	160	160	15703	2142.8	1.4082	12076	54.205	2.78	62.34	152.8	1.07	7.81	
11	FSM-1	500	160	78	11682	9117	3364	3.68	1.405	10048.19	42.35	2.81	42.38	6.781	1000	160	160	11519	2142.8	1.4082	9847	54.205	2.78	62.34	152.8	1.07	7.81	
12	FSM-3	250	160	78	7286	7286	2220	6.82	1.402	983.69	58.69	2.82	20.93	5.032	250	160	160	8382	1800.9	1.4113	7853.1	74.002	2.77	36.57	112.53	1.18	18.44	
7	FSM-4	180	160	78	8443	6470	1220	3.65	1.415	7637.25	74.59	2.83	21.61	6.13	1000	160	160	8328	1800.9	1.4122	7283.3	74.008	2.77	34.05	112.53	1.18	18.44	
5	FSM-5	50	100	78	8115	6242	1188	4.48	1.418	7733.48	74.51	2.84	22.5	6.387	50	160	160	8019	1194.7	1.417	7283.7	74.556	2.78	34.98	86.14	1.18	11.14	
7	FSM-6	1000	0	78	13453	10348	917	1.82	1.410	13277.86	44.78	2.82	27.5	4.391	1000	0	0	13355		1.4078	12167	44.404	2.78	38.45	88.83	0.69	18	
3	FSM-7	700	0	84	12813	9009		3.88	1.423	11401.62	48.23	2.82	22.51							1.4231	9218.2	58.653	2.78	29.86	65.51	0.57	27.73	
5	FSM-7	600	0	84	9765	6280	826	2.13	1.432	10675.07	51.53	2.82	18.02	16.1	500	0	0	9709		1.4292	7718.4	71.558	2.74	29.3	63.83	0.17	47.07	
3	FSM-8	250	0	78	7855	6027	825	2.05	1.432	8284.03	58.29	2.82	16.1	6.718	250	0	0	7821		1.4359	7002.2	80.569	2.80	24.78	32.34	0.45	19.85	
1	FSM-8	100	0	78	6764	5219	827	4.52	1.468	7704.13	81.17	2.83	7.688	8.535	100	0	0	6754		1.4637	6760.7	84.098	2.92	24.46	30.56	0.50	23.58	
23	FSM-10	50	0	0	8513	5010	821	4.61	1.478	8780.61	84.82	2.85	1.599	8.771	50	0	0	8481		1.4341	7050.6	77.44	2.80	33.87	90.87	1.24	8.27	
3	FSM-11	0	160	78	7774	5390	965	3.42	1.420	7166.1	77.84	2.88	20.1	7.78	0	160	0	7708		1.4175	7016.3	75.639	2.80	39.3	81.07	1.17	8.11	
9	FSM-11	0	160	78	7719	5305	1087	3.55	1.421	7110.81	78.19	2.86	24.95	7.78	0	160	0											
13	FSM-17	30	145	110	0.1774	78	7719	5305	1087	3.55	1.421	1.0571	8.2	2.82	38.33			7708										
13	FSM-17	100	110	0.04782	78	8145	6285	1388	4.55	1.422	10317	51.81	2.80	30.02														
13	FSM-12	160	40	0.0887	78	8258	6238	1470	5.08	1.428	7249.39	75.98	2.83	17	623	80	8058		1.4038	7184.								

0	2.81682	13.42	2.82	19.020
250	2.75373	14.88	2.80	18.010
500	2.80118	12.88	2.78	16.610
750	2.787	10.48	2.80	12.800
1000	2.81875	7.154	2.80	11.760
2000	2.86589	-8.156	2.84	2.851
3000	2.82134	-22.07	2.91	-7.605

Exhibit A2

Saved measurement

Active file: PRODUCER\BDII\BDII_3MM

3:21:38 pm

END LOC. IAO PP

Date/Time	Cas/Sit	Avg(t1)	Avg(n1)	Rng(t1)
09:54	01/17	11375.45	1.4245	1816.41
09:56	01/19	11581.93	1.4227	1649.68
09:58	01/21	11494.81	1.4285	1527.95
10:00	01/23	12612.90	1.4226	1593.88
12:13	01/23	6699.70	1.5382	21847.89
12:15	01/25	7687.76	1.5592	21649.99
12:28	01/06	9959.84	1.4440	3633.52
12:30	01/07	9556.36	1.3375	6126.81
12:32	01/08	9134.11	1.4188	5838.25
12:34	01/09	9192.83	1.3754	3389.95
12:38	01/10	8783.93	1.3263	4838.47
12:55	01/11	9662.48	1.4888	4075.91
12:57	01/12	9127.39	1.4861	4325.68
12:59	01/13	9544.18	1.4814	4054.38

Ratio → CF: 78

Buttons: Exit, More, Param, Print

OP5340/59189/8249

CF5N 7B-D700 N/C 10 C2.

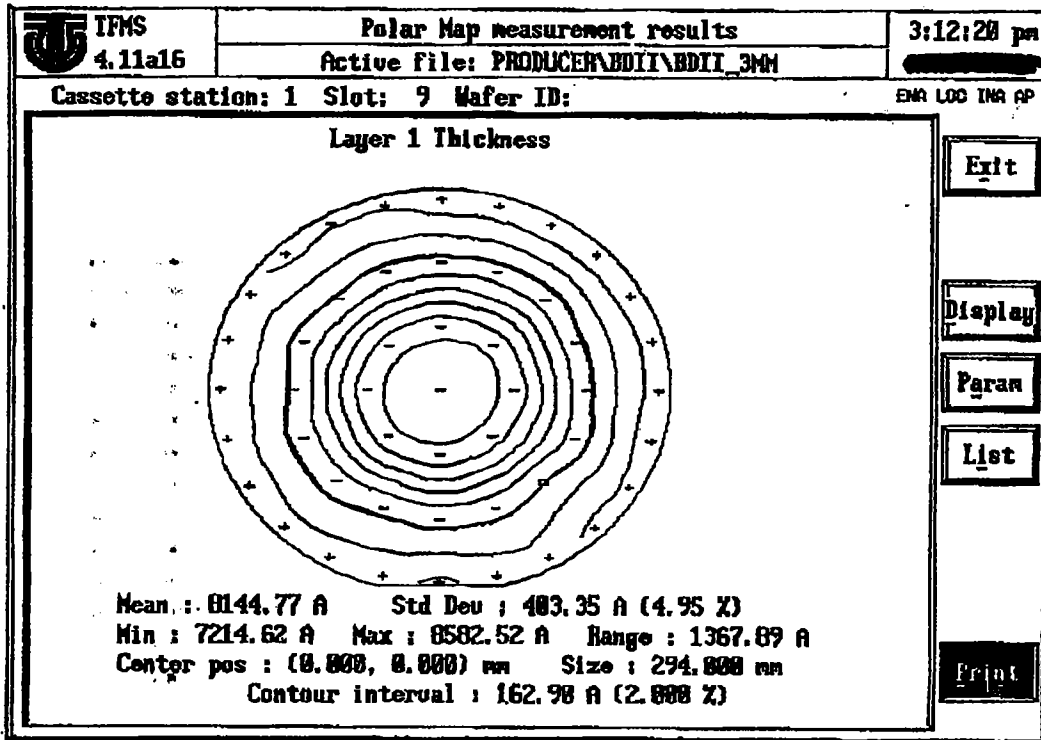
22.51

48-732
9.5

12-252-

27 June 1964

Exhibit C



OP5340/59189/8249

$$C_p = 7214.62$$

$$\text{stress} = 21.17$$

$$\begin{array}{c} \text{4} \quad \text{6} \quad \text{0} \quad \text{Si} \\ \text{AS Dep } 28.8 / 25.1 / 20.2 / 25.9 \\ \text{EBL } 27.1 / 25.5 / 21.6 / 25.8 \end{array}$$

$$\text{Ref } O_x = 148.1$$

$$T_{ox} = 5131.5$$

$$C_{ap} = 75.99$$

$$k = 2.81$$

AS Dep

$$N_2O = 100 \text{ sccm}$$

$$O_2 = 110 \text{ sccm}$$

$$\phi - FS - N - 16$$